

Annual Performance Report

Environmental Cooperative Agreement

Pleasant Prairie Power Plant

Pleasant Prairie, Wisconsin

We Energies
January 2004

Table of Contents

	<u>page</u>
Summary	3
Introduction	3
Goals and Objectives	3
Performance Evaluation	4
Environmental Management Systems	4
Research	5
Environmental Performance	6
Regulatory Flexibility	18
Ash Fuel Reburn and Beneficial Use	19
Outreach	19
Administrative Savings	20
Progress on Other Commitments	20
Data Appendix	23

SUMMARY

We Energies signed Wisconsin's first voluntary Environmental Cooperative Agreement in February 2001. This agreement is specific to Pleasant Prairie Power Plant located in Kenosha County, Wisconsin in the Village of Pleasant Prairie.

With the agreement We Energies committed to providing a periodic performance report detailing both measurable environmental performance improvement and progress towards the specific goals of the Environmental Cooperative Agreement. The content of the report is outlined in Section XIV of the agreement.¹ The performance reports are to be in alignment with the Global Reporting Initiative's (GRI) reporting guidelines and present at least three years of environmental performance data.

INTRODUCTION

Wisconsin Electric Power Company (conducting business as We Energies) signed a voluntary Environmental Cooperative Agreement with the Wisconsin Department of Natural Resources (DNR) in February 2001. The agreement is specific to the Pleasant Prairie Power Plant located in Kenosha County, Wisconsin. This is a five year agreement and may be renewed for an additional five years.

GOALS AND OBJECTIVES

The overall goal of the Pleasant Prairie Power Plant Environmental Cooperative Agreement is provide "an alternative method for the regulation of the environmental impacts." Within this overall goal were several specific objectives, including:

- Baseline and periodic performance evaluations
- Implementation of a formal environmental management system (EMS)
- Commitment to measurable superior environmental performance
- Informing and involving an interested persons group
- Periodic reporting
- Operational flexibility, specifically focusing on;
 - Alternative monitoring and enhanced corrective action
 - Reduced reporting and decreased administrative expense
 - Permit streamlining
 - Coal combustion waste materials utilization.

Progress towards these objectives are discussed in the remainder of the report.

¹ In addition to this report, Wisconsin Energy Corporation provides an overall corporate performance report following the Global Reporting Initiative (GRI) sustainability reporting guidelines. This overall corporate report can be found on the internet at www.wec-performancereport.com. Additional information regarding the GRI guidelines can be found on the internet at www.globalreporting.org.

PERFORMANCE EVALUATION

Section XIV of the agreement requires that We Energies annually perform and report to the DNR the results of a baseline performance evaluation. This is defined in section II.G of the agreement as:

"A systematic, documented and objective review, conducted by or on behalf of the owner or operator of a facility, of the environmental performance of the facility, including an evaluation of compliance with the cooperative agreement and the provisions of Chapters 280 to 295 Wis. Stats. and rules promulgated under those chapters for which a variance is not granted under section 299.80(4) Wis. Stats."

The most recent environmental evaluation of Pleasant Prairie Power Plant was conducted during March 2003. A copy of the results and confirmation of any necessary corrective actions were provided to the DNR. All corrective actions were completed within 90 days of the evaluation.

The evaluation was conducted by a team comprised of members of We Energies' compliance management staff. This compliance group is independent of the business unit that operates the plants and reports directly to the Vice President-Environmental for Wisconsin Energy Corporation. The performance review followed the procedures outlined in the ASTM Standard E2107-00 (Standard Practice for Environmental Regulatory Compliance Audits). The ASTM standard addresses responsibilities, auditor qualifications, audit processes, record management and audit report preparation. Each evaluation was comprised of interviews, records reviews and physical inspections of each facility.

ENVIRONMENTAL MANAGEMENT SYSTEMS

We Energies committed to implementation of a formal ISO 14001 environmental management system (EMS) as part of the Pleasant Prairie Power Plant Environmental Cooperative Agreement. The key components of an EMS are outlined below.

Principle EMS Components
Environmental Policy
Environmental Planning
Environmental Aspects
Legal and Other Requirements
Objectives and Targets
Environmental Management Programs
Implementation and Operation
Structure and Responsibility
Training and Awareness
Communication
EMS Documentation
Document Control
Operational Control
Emergency Preparedness and Response
Checking and Corrective Action
Monitoring and Measurement
Nonconformance and Corrective and Preventive Action
Records
EMS Audit
Management Review

Primary responsibility for maintaining the EMS rests with the P4 Cooperative Agreement System Team, or CAST. Specific EMS activity highlights of the CAST and staff at P4 include the following.

EMS Activity	
Training	General EMS training was provided to key management and operation staff at P4. This was part of a general EMS training program for all staff of We Energies' fossil-fueled generating plants in Wisconsin. The training included an overview of the EMS standard as well as specific EMS activities necessary within an operating facility.
Solid Waste Guidance	The P4 CAST prepared a Solid Waste Guide covering all identified solid waste streams in the plant. The Guide provides information on the proper storage, labeling, disposal and transport of any solid waste streams collected for recycling or disposal. This information is posted at various locations in the plant and is updated periodically to reflect any changes in materials or practices. The Guide also is being used as a reference for other plants.
Contractor Expectations	P4's management anticipates a significant increase in the use of contractors to install several major emission control and other systems at the plant during the next decade. In preparation for this increased contractor activity, the CAST and other We Energies fossil operations are identifying key environmental expectations and behaviors of contractors at P4 in alignment with the goal and objectives of the Environmental Cooperative Agreement and the plant's EMS.
On Site Inspections	To support both environmental compliance and best practices, the P4 CAST has initiated periodic on-site inspections of various systems at the plant. These are intended to complement the annual performance reviews and to increase the overall environmental awareness of plant operating staff. Where necessary, corrective action is taken, and changes in procedures are recommended if appropriate.
Communications	The P4 CAST has been the initiator of both internal and external environmental communications. This has included the development of newsletters distributed both within and outside the company, and articles in P4's weekly <i>WATTS New</i> newsletter.

Additional information regarding P4's EMS is located at on the internet at www.we-energies.com/environment/p4eca.

RESEARCH

We Energies continues to support and conduct research on mercury measurement and removal. This research consists of studies conducted at We Energies' facilities and funded collaborative research with the Electric Power Research Institute (EPRI), the U.S. Department of Energy (DOE) and the U.S. Environmental Protection Agency (EPA).

Previous mercury research supported by the company focused on detecting and measuring the various forms of mercury in plant emissions and the environment. More recent research has examined potential mercury emission reduction strategies, including both co-control of mercury by existing air pollution

control devices and mercury-specific control technologies. We Energies currently is supporting both approaches to reducing mercury emissions.

Co-Control Mercury Removal Technologies

During 2003 We Energies worked with EPRI and DOE in performing a detailed evaluation of the newly installed selective catalytic reduction (SCR) unit for nitrogen oxides reduction at the Pleasant Prairie Power Plant (P4). The goal of the study was to determine the degree to which the SCR oxidized the elemental mercury present in the flue gases. Results of the study indicated that at power plants burning low sulfur western coal (and particularly sub-bituminous coal), operation of a SCR does not contribute significantly to the collection or co-control of oxidized mercury by wet scrubbers.

Mercury-Specific Removal Technologies

We Energies continues support of EPRI and DOE research that targets the direct removal of mercury from power plant emissions. Two specific projects are being supported or explored by the company.

Carbon-Based Sorbent Injection – We Energies' Pleasant Prairie Power Plant participated in a DOE and EPRI funded project to determine the feasibility and effectiveness of carbon-based sorbents that are injected into the plant flue gases upstream of the particulate control devices. Pleasant Prairie Power Plant was one of four power plants initially examined; however, DOE plans to perform similar tests at six additional plants during the next year. Results of testing at P4 indicated that 60-70 percent of the mercury was removed from the flue gas, although mercury removal performance is impacted significantly by the gas chemistry specific to low sulfur coal. However, the presence of the carbon-based sorbent in the fly ash adversely impacts the marketability of this product for beneficial use by the cement and other industries.

Gold Panel Collection – We Energies provided P4 as a host site during late 2002 and early 2003 for EPRI-sponsored research wherein mercury was captured using stationary gold panels mounted within the plant's ESP ductwork. Gold and a limited number of other substances have been demonstrated to capture mercury in small test apparatuses. The initial research at P4 examined the feasibility of using stationary, large scale gold traps from which captured mercury can be recovered periodically. EPRI's research on this technology continues.

We Energies will continue to both conduct research and implement mercury control technologies at both P4 and at other coal-fueled power plants operated by the company. We Energies is committed to a significant overall reduction in mercury emissions from the plants as part of the voluntary Multi-Emission Cooperative Agreement (MECA) signed with the DNR in September 2002. This second and broader Cooperative Agreement by We Energies includes a ten percent mercury reduction target by 2008, and a fifty percent reduction target by 2013

Additional information on We Energies' mercury research can be found on the internet at www.we-energies.com/environment/mercury.

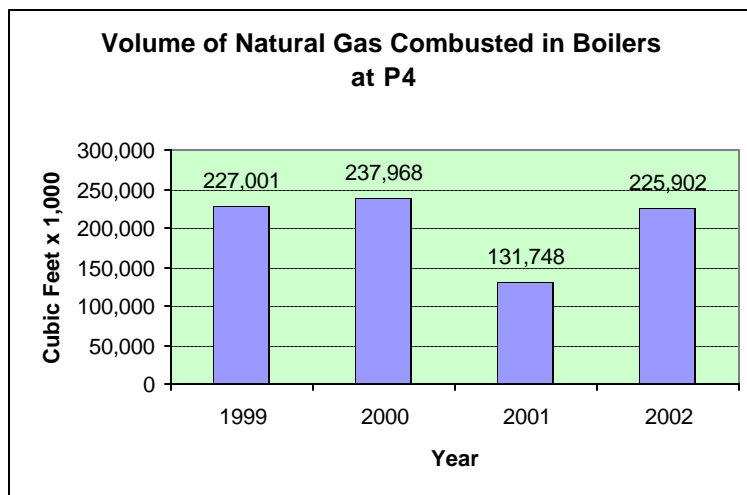
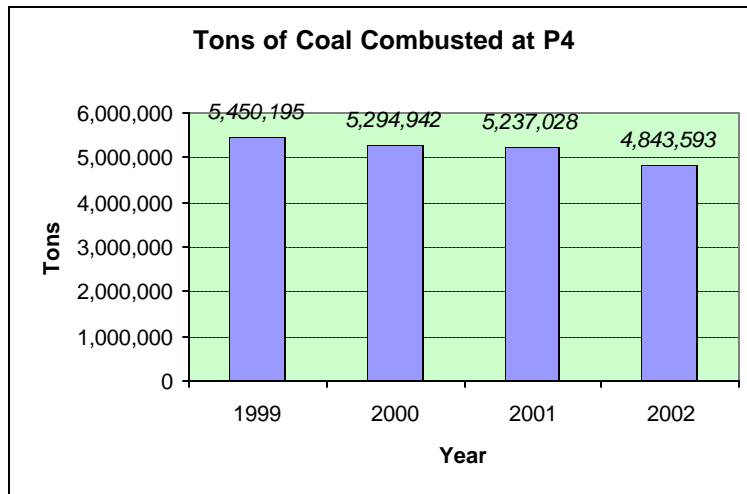
ENVIRONMENTAL PERFORMANCE

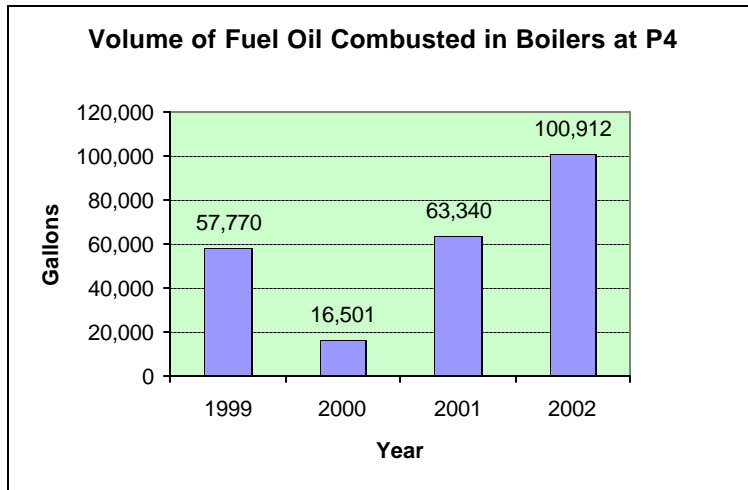
One of the primary objectives of the P4 Environmental Cooperative Agreement was to provide measurable improvements in environmental performance at the plant. The following section provides summary data for the plant in accordance with Section XIV of the agreement.

Fuel Use

Pleasant Prairie Power Plant utilizes three fuels: coal, fuel oil, and natural gas. Coal is the primary fuel, while fuel oil and natural gas are utilized during plant start up and for initial flame stabilization when coal is first introduced to the boilers. The usage of fuel oil and natural gas can fluctuate due to electrical demand, the cost of fuels, and the number of unit starts and stops during the year. The higher fuel oil use in 2002 reflects a partial emptying of the on-site fuel oil storage tank to allow for periodic integrity testing of the tank.

The following diagrams illustrate the amount of these three fuels utilized at P4 during the past four years.

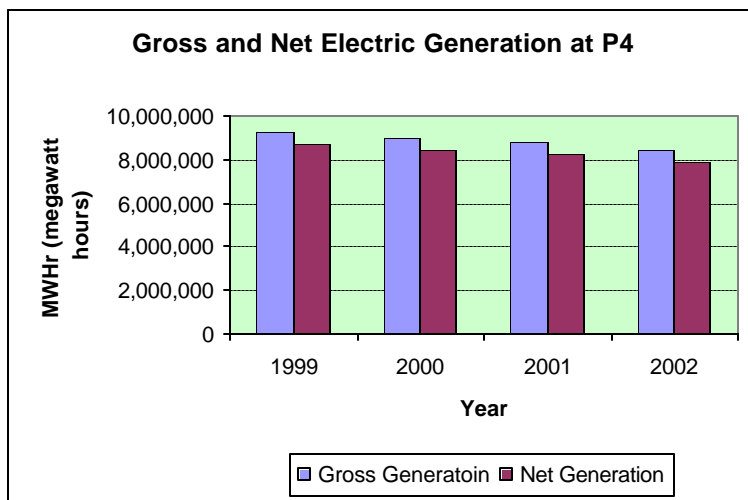




Generation

Total electrical generation by the We Energies' plants, including P4, is a function of both economic conditions and weather, and the availability of individual units.

One of the more significant projects that affected unit availability was the installation of the selective catalytic reduction (SCR) unit on Unit 2 of P4. This control technology was installed in 2002 and was first operated during the 2003 summer ozone season to reduce nitrogen oxide (NOx) emissions. Installation of the SCR required a multi-week shutdown of Unit 2 during 2002. This shutdown was partially responsible for the lower generation levels in 2002.

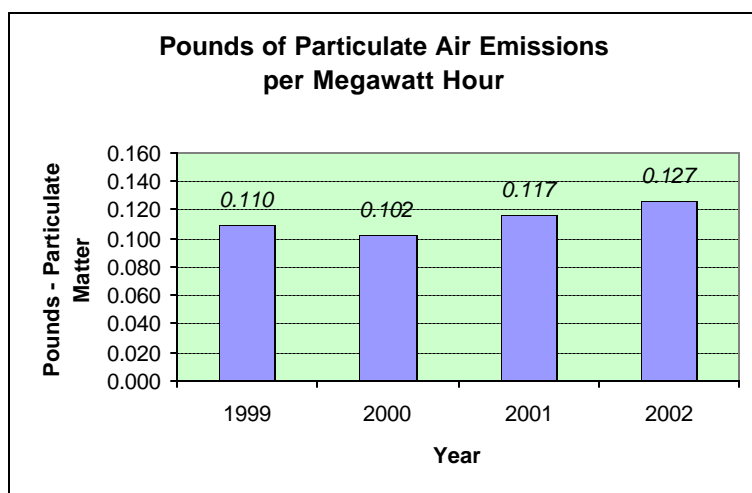
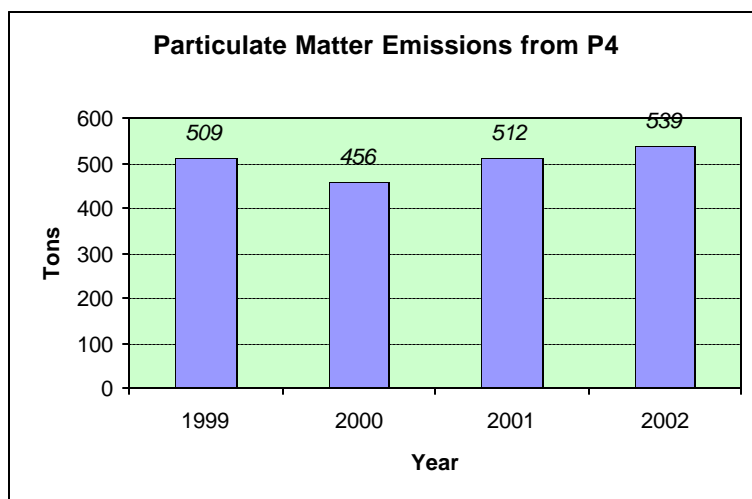


Gross generation represents the total amount of electrical energy produced by the plant. The net generation value represents the amount of electrical energy available for transmission to our customers after internal electrical use by the plant (e.g., electrical usage by motors for pumps and fans, power for the electrostatic precipitator, etc.).

Particulate Matter Air Emissions

Particulate matter emissions from P4 are a function of the total amount of coal combusted by the plant and the efficiency of the air emission control systems in removing particulate matter. The allowable level of particulate matter emitted by the plant stack is set by the air quality permit. During the most recent compliance testing, the plant's average particulate emission rate was at approximately 15 percent of the regulatory limit.

The estimated total mass and rate of particulate emissions by the plant during the past four years is illustrated in the figures below.² Emissions during the past full reporting year reflect some decrease in efficiency by the electrostatic precipitator (ESP). This data also reflects the effect of plant outages that contribute to higher particulate emissions. Start-up and shutdown periods associated with each outage take several hours, during which time the ESP removal efficiency is lower than normal operating conditions. Some of the start-up and shutdown events were associated with the installation and start-up of the selective catalytic reduction unit installed during 2002 and initially operated during 2003.

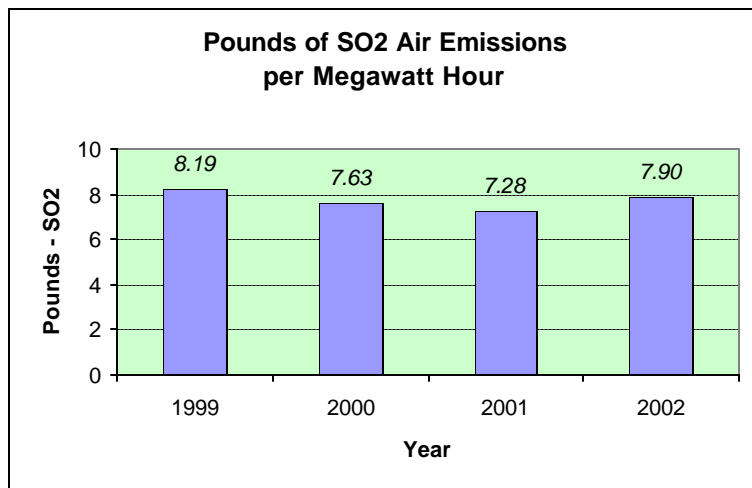
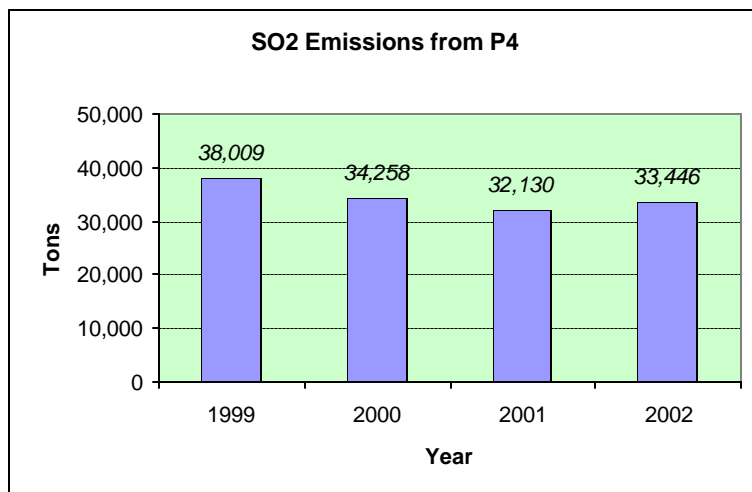


² Particulate matter emissions data presented reflects the results of biennial particulate emission sampling and calculated estimates in accordance with U.S. Environmental Protection Agency protocol. Continuous particulate matter monitoring systems are now being developed for industrial and electric generating facilities, and will be installed at P4 in the future.

The electrical control system operating the ESP was upgraded during 2002. Data for 2002 may also reflect some initial adjustment of these new control systems.

Sulfur Dioxide Air Emissions

The level of sulfur dioxide (SO₂) emissions from P4 are a direct function of the percent sulfur in the coal. Pleasant Prairie Power Plant burns a low sulfur coal from the Powder River basin in eastern Wyoming. The following graphics illustrate the sulfur dioxide emissions from the plant.



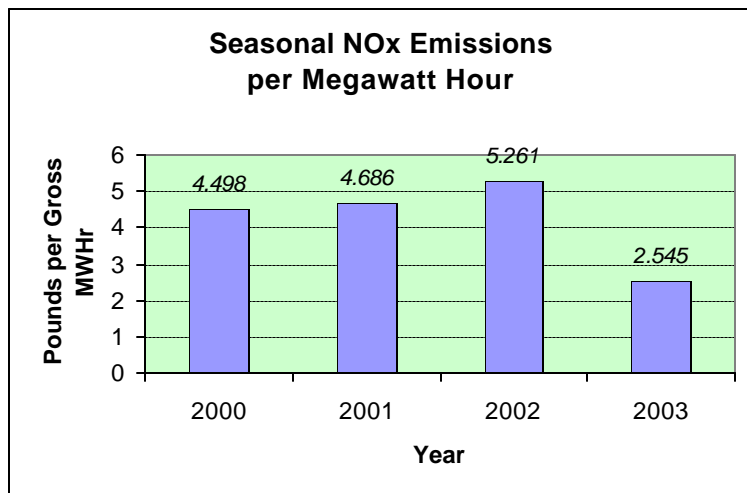
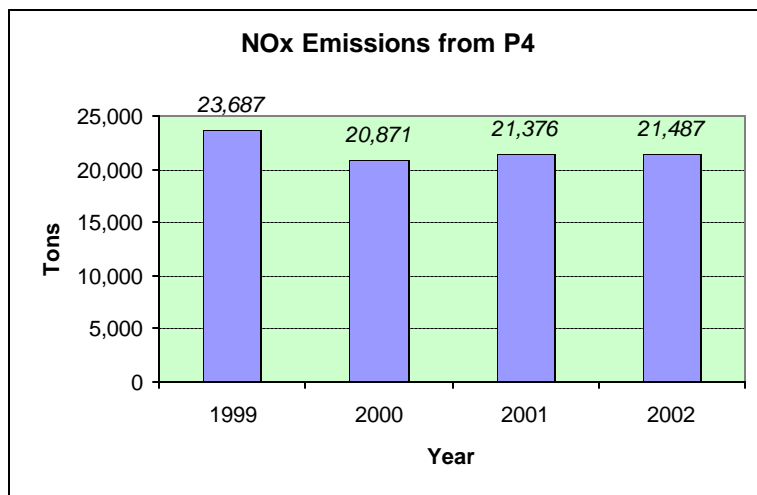
We Energies is currently developing the conceptual design and specifications for a flue gas desulfurization (FGD) unit to be installed in both Units 1 and 2 at the plant during the next five years. These systems will remove a significant fraction of the SO₂ in the flue gas, thereby reducing these emissions from P4. Initial construction activities for the first FGD unit will begin in 2004.

Nitrogen Oxide Air Emissions

During the second half of 2001 and throughout 2002, the P4 was installing Wisconsin's first selective catalytic reduction (SCR) unit. This \$80 million investment was installed to specifically reduce NO_x

emissions. First operation of the SCR occurred during the 2003 summer ozone season and had a significant impact on plant NO_x emissions. This NO_x emission reduction is illustrated in the second graphic below.

A second SCR will be installed on Unit 1, with construction beginning to 2004, and will further reduce NO_x emissions from the plant.

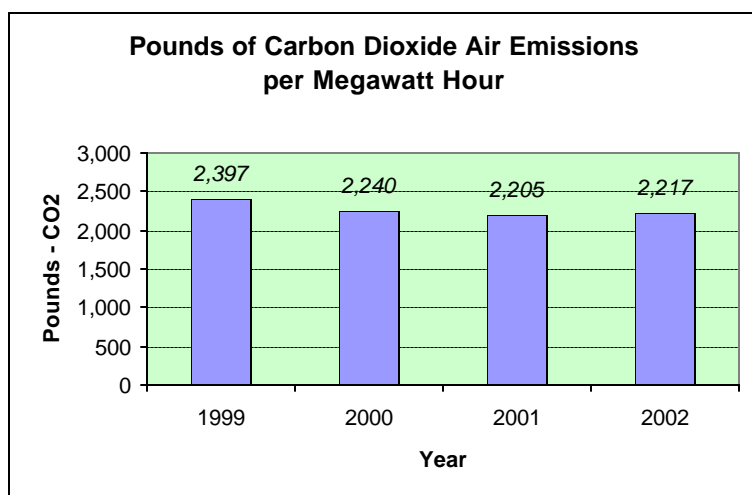
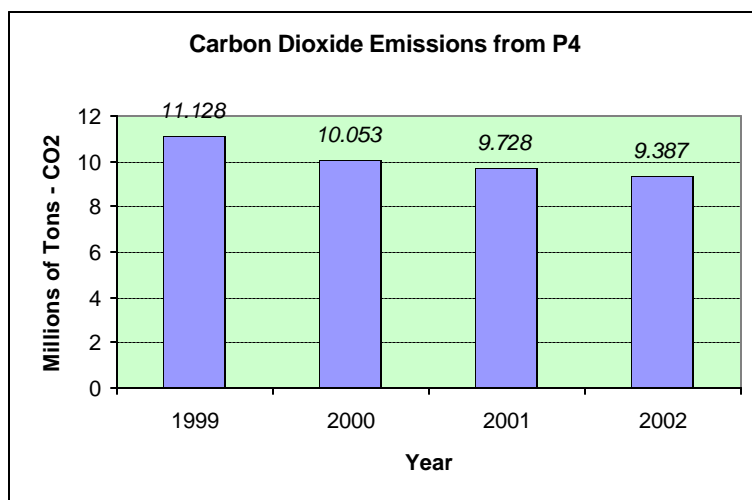


Carbon Dioxide Air Emissions

We Energies' carbon dioxide, or greenhouse gas (GHG) emissions rate (lb/MWh) fluctuates from year to year depending on the demand for electricity by our customers, the amounts and types of fuel burned, and the efficiency of our generating units. The company is continually seeking performance improvements that increase this efficiency. On a system-wide basis, the company is increasing the amount of renewable energy in its portfolio, thereby reducing the percent of fossil fuels utilized by our customers.

Reduction in the total volume of carbon dioxide emissions from P4 is a function of reduced operation due to the outages associated with the installation of the SCR for NO_x reductions. Some minor reductions in carbon dioxide emissions may also occur due to boiler tuning to reduce the amount of excess air required

for combustion. Carbon dioxide emissions are currently not regulated by federal or state law. However, We Energies voluntarily reports its emissions and has taken actions to reduce carbon dioxide and other greenhouse gas emissions.³

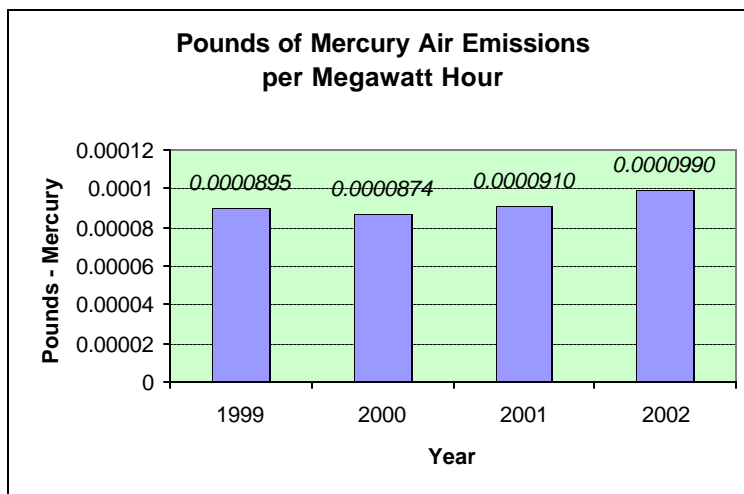
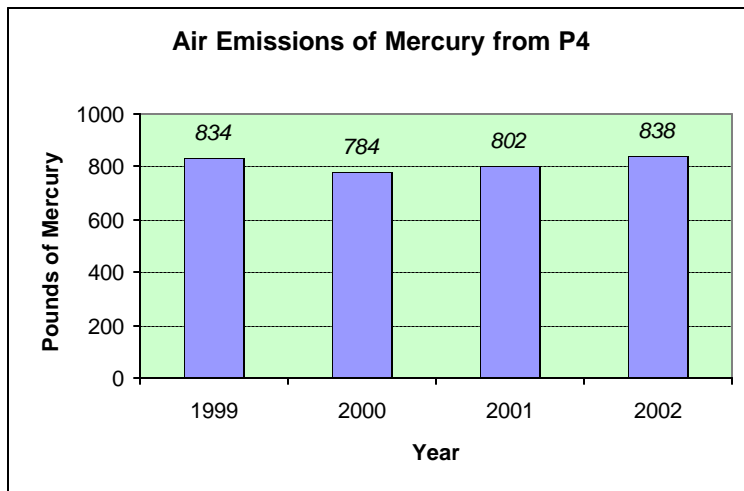


Mercury Air Emissions

Mercury is a trace constituent in coal. Air emissions of mercury from P4 are a function of both the mercury concentration in the coal and fraction of mercury that is not entrained in the coal combustion products consisting of bottom and fly ash. Mercury in the plant's exhaust gases exists in concentrations approximately one thousand times lower than nitrogen oxides or sulfur dioxide. Consequently, mercury is difficult to measure, and methods to remove mercury at such low concentrations are currently being developed and tested. As indicated in the Research section of this report, We Energies is making significant research investments to more accurately measure mercury in the boiler exhaust gases, and to develop new mercury control technologies. Installation of the SCR and FGD also are anticipated to provide some collateral benefit in reducing mercury emissions.

³ Additional information about We Energies greenhouse gas emissions and reductions is presented in the company's corporate performance report at www.wec-performancereport.com.

Currently there are no mercury emission limits for P4 or other power plants in Wisconsin. The DNR and the EPA are both proposing regulatory actions that would require reductions in the future. Both agencies and the U.S. Department of Energy, are encouraging the testing and development of full scale mercury reduction systems. In 2002, as part of its voluntary Multi-Emission Cooperative Agreement, We Energies committed to a significant overall reduction of mercury emissions from its overall coal-fueled power plant system. This included a ten percent reduction target by 2008, and a fifty percent reduction target by 2013.



Process Water Treatment

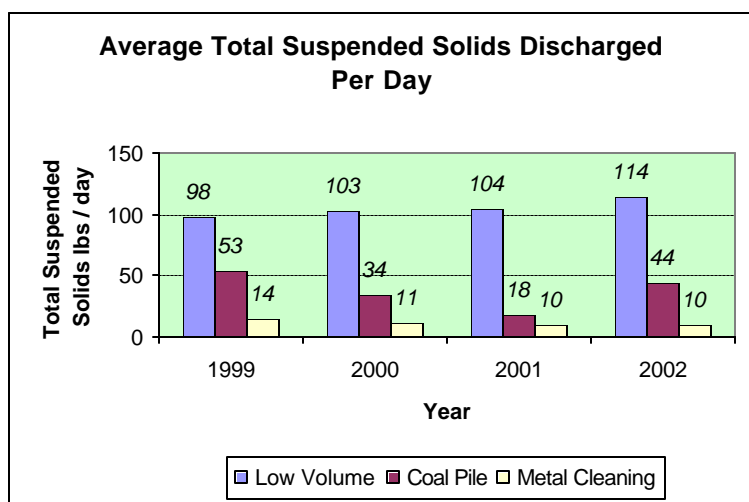
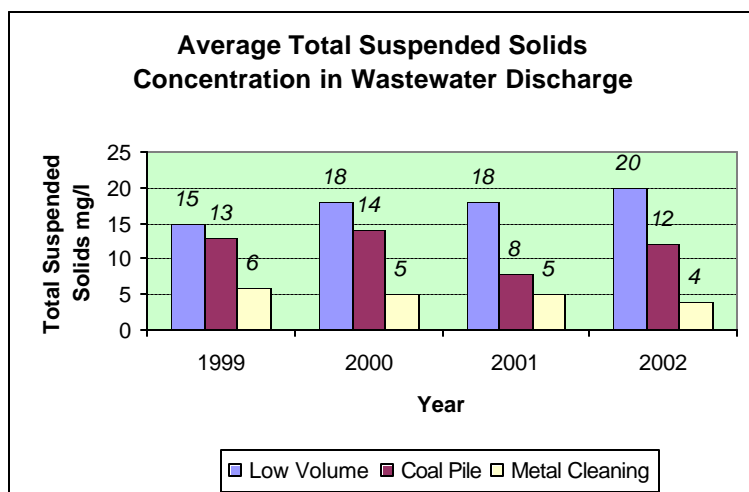
All sanitary waste from the plant is treated offsite by the City of Kenosha.

Wastewater from plant processes, floor wash down drains, coal pile runoff and other drainage is treated at a permitted wastewater treatment facility on the plant property. Three specialized process or runoff waste stream collection basins are located north of the main plant building, and include the coal pile runoff basin, low volume waste treatment basin and the metal cleaning waste basin. Water from these basins is treated and monitored in the plant's wastewater treatment system building.

Total Suspended Solids Waste Water Discharges

Due to the large quantities of coal and ash products handled by the plant, there is the potential for suspended solids in untreated wastewater and stormwater runoff from the plant. Consequently, the plant's wastewater discharge permit requires that the plant treat process wastewaters and runoff from the plant, and that the wastewaters discharged from the plant are within certain limits. In order to minimize the discharge of suspended solids, the low volume, metal cleaning, and coal pile runoff basins are used to promote the initial settling out of these fine grain materials. This settling process is followed by any necessary treatment in the plant's wastewater clarifier system that uses flocculents to aggregate and further remove suspended solids.

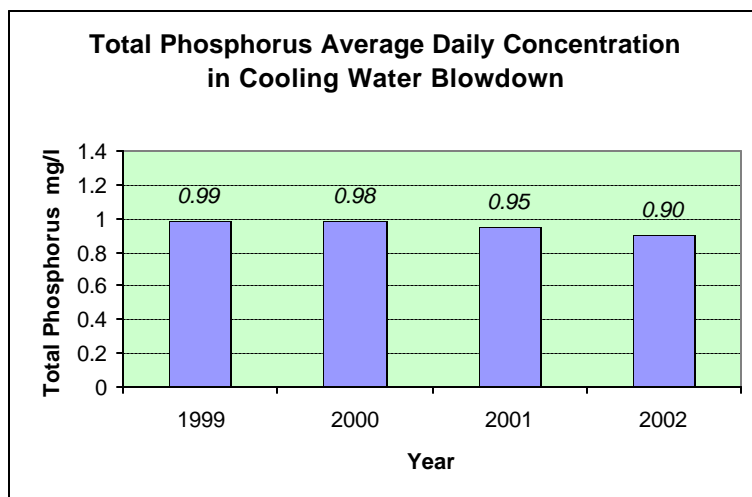
The plant's wastewater treatment permit limits total suspended solids concentrations to 100 mg/l (milligrams per liter) on a daily basis and 30 mg/l on a monthly average basis. The following diagrams illustrate average suspended solids concentrations and mass from the three basins regulated by the wastewater permit.



Total Phosphorus in Water Discharges

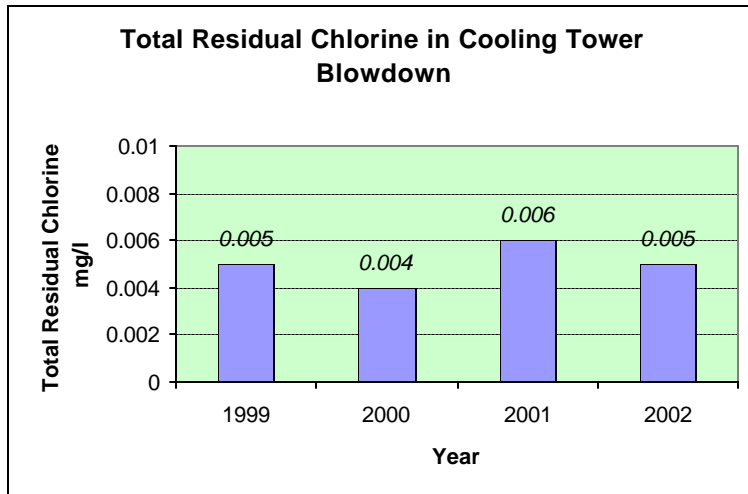
The largest single water discharge from P4 is the cooling water blowdown from the two mechanical draft cooling towers located north of the power plant building. The majority of the water pumped from Lake Michigan is routed to the closed loop, recirculating, plant cooling water system. The cooling towers work by cooling the closed loop system water through evaporation. This evaporation is noticeable as the plume of water vapor that is seen above the cooling towers. Some minor levels of chemical additives are mixed with the cooling water to prevent the growth of algae and other organisms, as well as to prevent corrosion. These additives may include both phosphorus and chlorine. The cooling water becomes concentrated with naturally dissolved materials due to the evaporation of the water from the towers. A fraction of this concentrated water, or cooling tower blowdown, is routed back to Lake Michigan. Two parameters of special interest in this cooling water blowdown are phosphorus and residual chlorine.

The following graph illustrates the long-term phosphorus concentration in the cooling water blowdown. A part of the phosphorus concentration in the discharge reflects the background level of phosphorus present in the water when it is withdrawn from Lake Michigan. Additionally, the process of utilizing the water in the cooling towers also concentrates this nutrient. The plant was in compliance with the phosphorus limit throughout 2002 and to date in 2003.



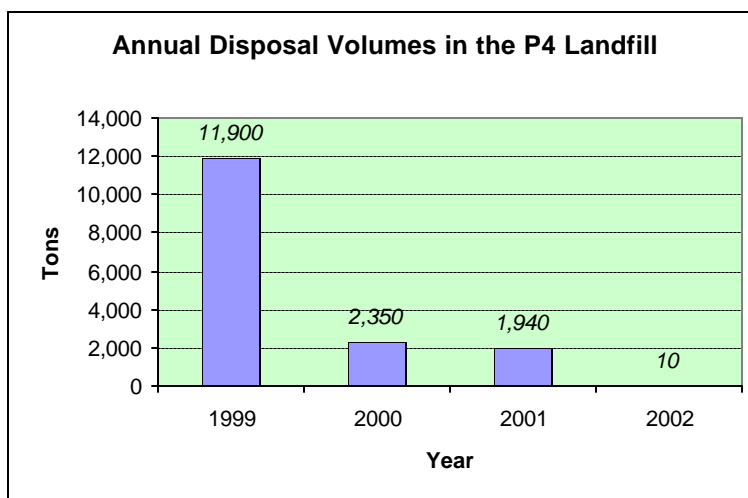
Total Residual Chlorine in Water Discharges

Chlorination of the plant cooling waters is necessary to limit the growth of algae and other biological growths which can limit the thermal efficiency of the cooling towers, and consequently the plant's overall efficiency. The plant's wastewater discharge permit limits the concentration of residual chlorine in the cooling water blowdown discharged to Lake Michigan. The following graph illustrates the residual chlorine content in the cooling water blowdown. The plant was in compliance with this limit throughout 2002 and to date in 2003.



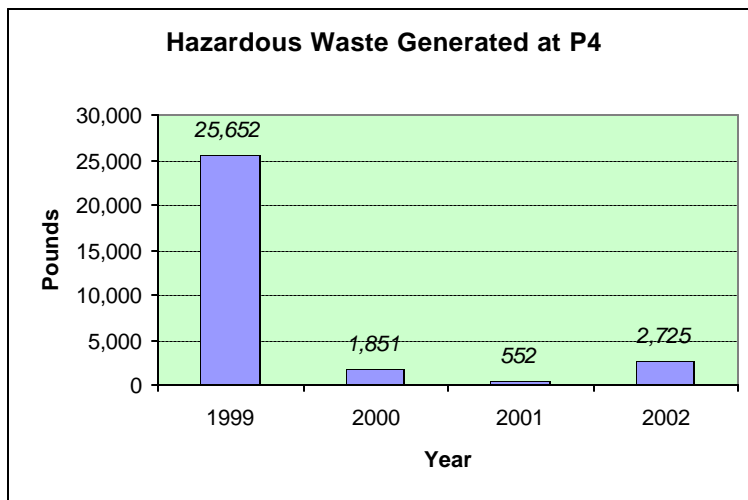
Ash Disposal Volumes in Landfills

One of the goals of the P4 agreement is to maximize the beneficial utilization of coal combustion products (e.g., fly and bottom ash from the boilers), thereby decreasing the amount of material that is treated as waste and placed in the plant's licensed landfill. As illustrated in the following graphic, the total amount of material placed in the landfill has decreased significantly. The only material currently placed in the landfill are de minimis amounts of ash and sludge material that can not be beneficially used.



Hazardous Waste Generation

A key pollution prevention goal of the plant is to minimize the production of hazardous waste that must be shipped off site for treatment or disposal. To date the plant has been successful in identifying opportunities to reduce, reuse or recycle material, thus avoiding the generation of all types of solid waste, including that characterized as hazardous. However, due to construction activities at the plant, there is an increased potential for the generation of waste paint material removed from plant surfaces, used solvents and other materials associated with the major air quality improvement projects describe above. We Energies and plant staff are continuing to work with our key contractors to establish and follow pollution prevention practices.



The high level of hazardous waste generation in 1999 reflects an error by the vendor resulting in the mixing of two plant chemicals, rendering both materials as a waste requiring off site treatment and disposal. Preventive steps have been taken to avoid a repeat of this type of incident.

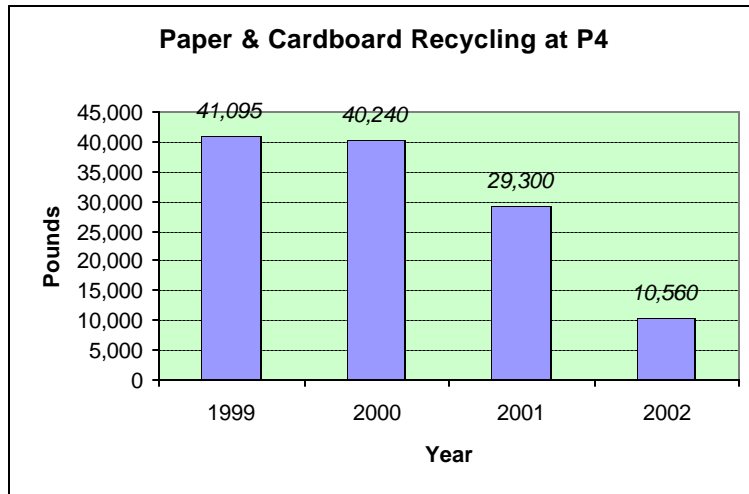
Toxic Release Inventory (TRI) Releases

The Toxics Release Inventory (TRI) was created by the EPA to help communities encourage industries to voluntarily reduce those emissions designated by the agency as “toxic” substances. Created as part of the Emergency Planning and Community Right-to-Know Act of 1986 and administered by the EPA, the TRI is a public record of the release and transfer of designated chemicals by private companies and government facilities.

We Energies annually reports to the EPA the TRI emissions by P4 to land, air and water. Detailed TRI data for P4 (and other We Energies power plants) is published on the internet at www.we-energies.com/environment/tri.

Paper and Cardboard Recycling

The P4 staff continue to collect and recycle paper and cardboard products, as well as seeking to reduce the total amount of these materials used at the plant. The total volume of cardboard and other packaging material generated by the plant is dependent in part to outage and construction projects, including the activities and practices of contractors and suppliers. The following graphic illustrates recycling data for these materials.



REGULATORY FLEXIBILITY

Section XII of the P4 cooperative agreement provides a mechanism for We Energies and the DNR to exercise certain operational flexibility and streamlining in recognition of annual reviews and reporting, implementation of environmental management systems and other commitments of the agreement.

Permit Streamlining

We Energies has utilized this provision once during 2002 and once in 2003. The construction permit provision was applied to replace the molten sulfur injection system and second, to build a conditioned ash storage building. In the first case a response was received within 13 days. For the second case, DNR's air quality staff provided a written response within 37 days. However, DNR's solid waste professionals had to review the decision because the facility included the handling and storage of coal combustion products. Consequently, approximately four months were required for a decision by the agency.

Streamlined Data Collection and Reporting

We Energies staff continue to utilize several of the provisions of the cooperative agreement that allow for streamlined data collection and reporting. These include the following.

- Electrostatic precipitator monitoring and data collection, combined with enhanced corrective action
- Instrument calibration based on good engineering practices
- Baghouse collector data inspection and data collection
- Semi-annual excess emission reporting
- Annual wastewater discharge monitoring report summaries.

The cooperative agreement contains provisions for We Energies to submit quarterly excess emission and Title V semi-annual and annual reports to the DNR and EPA electronically within 45 days after the end of each reporting period. To date this flexibility has not been exercised because the EPA has not developed the final rule outlining procedures for authenticating electronic signatures. We Energies has participated in a separate pilot project with the DNR examining the feasibility and effectiveness of providing wastewater discharge data electronically to the agency.

ASH FUEL REBURN AND BENEFICIAL USE

We Energies has two patented processes that allow the company to recover energy from ash that would otherwise be managed as a waste. One patent (U.S. Patent # 5,992,336) allows bottom ash and fly ash with a high loss on ignition to be reburned in a pulverized coal furnace such as those at P4. The other patent (U.S. Patent # 6,637,354) allows the company to identify and recover ash products from a previously used disposal site, and where possible, reburning this ash for energy recovery. These processes have been utilized at P4 and provide several environmental benefits. These benefits, based on data project through the end of 2003, are outlined below.⁴

Total Ash Reburned	308,00 tons
Avoided Coal Use	132,00 tons, or 1,150 rail cars
Avoided Landfill Space	256,000 cubic yards
Potential Avoided CO ₂ Emissions	158,000 tons
Fly Ash Produced for Beneficial Use	138,000 tons

We Energies has leveraged this energy recovery experience at another one of its plants at Marquette, Michigan.

OUTREACH

We Energies and P4 staff continue to provide information and seek feedback from members of the Pleasant Prairie and surrounding communities and other interested stakeholders. Development and implementation of the cooperative agreement heightened the plant's interaction with interested neighbors, regional environmental groups, surrounding businesses and elected and appointed governmental officials. Approximately 60 individuals or groups have either stepped forward or been identified by the plant staff as potentially interested parties. This list has remained unchanged during the past two years as no new interested stakeholders have identified themselves. We Energies will review this list and update it during 2004 as part of the plant's outreach associated with air quality construction projects that will be initiated.

To provide information and to stimulate feedback, P4 staff have taken several actions, including the following:

- Plant information sessions and tours, including a specific tour during the construction phase of the SCR (see the Emissions section above)
- Periodic mailings, including plant environmental newsletters that were introduced in 2003, and focused fact sheets
- Sponsoring a native prairie planting area at the front of the plant in 2003 and a follow up "prairie walk" day in 2003 (A fact sheet listing all native plant species planted at P4, as well as reference to where these plants can be purchased, was developed and distributed in 2003.)
- Focused outreach to targeted community, governmental and professional groups.

⁴ This data also appears in a December 2003, U.S. Environmental Protection Agency publication entitled *Ash Fuel Reburn and Beneficiation at We Energies*.

The plant will continue these and other outreach activities with specific emphasis on the projected air quality improvements scheduled to be installed starting in 2004 and extending through 2007. This construction phase will increase contractor traffic in the area surrounding the plant, and noticeable changes will occur in the overall plant structure as seen from surrounding roads and highways. Because permits and other approvals will be required from both the DNR and the Village of Pleasant Prairie, it is anticipated that interaction and opportunities for feedback will increase starting in 2004 when the first construction activity is scheduled to occur. At this time the plant will also review the composition of the interested persons group and update to whom information is provided or feedback solicited.

One of the challenges identified by P4 staff has been the low level of participation or feedback from interested stakeholders regarding activities at the plant and progress on implementing the Environmental Cooperative Agreement. We Energies continues to work with the DNR and other engaged parties in seeking opportunities to enhance stakeholder engagement.

Detailed information about P4, including environmental management system and other documentation, is available at the We Energies' internet site, www.we-energies.com.

ADMINISTRATIVE SAVINGS

Measurable administrative savings were one goal of the P4 Environmental Cooperative Agreement. The primary source of these savings is flexibility in monitoring and reporting. The most significant administrative savings realized by both We Energies and the DNR is the construction permit streamlining. By using the construction permit streamlining provision of the cooperative agreement, no permit is issued requiring the payment of a construction permit fee of \$4,500 by the company. We Energies also realized some staff savings by reduced meetings and other actions associated with routine permit applications and approval by the DNR. These permits are conservatively estimated to require approximately 80 hours of staff time per application.⁵ Because We Energies used the construction permit streamlining provision twice during 2002 and 2003, savings are estimated to be \$9,000 in permit fees and \$16,000 in staff costs.

The DNR has identified staff labor savings resulting from We Energies' use of the construction permit streamlining. Each construction permit review requires approximately 80 to 100 hours of agency staff time. According to estimates provided by the DNR, utilizing the streamlining provision reduces agency staff time by 70 to 90 hours per permit. Consequently, the DNR realized a staff time savings of approximately 140 to 180 hours since the cooperative agreement was initiated.

PROGRESS ON OTHER COMMITMENTS

The P4 Environmental Cooperative Agreement included several environmental commitments related to superior environmental performance and that are to be included in performance reports. The follow table provides a summary of We Energies' performance on these commitments.

⁵ Actual We Energies staff time is dependent on agency review time and any required follow up activities.

Coal displaced by recovered ash	<p>Pleasant Prairie Power Plant continued to burn as a fuel, high-carbon fly and bottom ash from the Milwaukee County, Port Washington and Valley Power Plants, as well as material that was recovered from the landfills. In 2002, the plant reburned more than 111,900 tons of newly produced ash from other plants along with more than 8,200 tons of ash recovered from the company's landfills in Caledonia and Waukesha, Wisconsin.</p> <p>During 2002, the reburning of this ash fuel avoided the purchase of 535 rail car loads of coal, or approximately 55,900 tons of purchased fuel. Additionally, in the fall of 2003, P4 staff celebrated a milestone by having avoided over 1,000 rail car loads of coal since ash fuel reburning was initiated.⁶</p>
Saved or recovered landfill space	<p>The ash reburn process at P4 saved the equivalent of 77,890 cubic yards of landfill space in Wisconsin. The amount of space would have been required had the high-carbon ash from other power plants not been burned at P4. Additionally, approximately 8,200 cubic yards of landfill space were made available by the direct recovery of ash from the two landfills listed above.</p>
Coal ash recovery from landfills for beneficial use	<p>During 2002, We Energies recovered 20,117 tons of coal ash from the P4 landfill and sold it as a base material to replace stone and gravel under roads, parking lots and buildings. This conserves natural resources such as sand and stone that would otherwise be mined and transported from other locations.</p>
Progress on the environmental management information system (EMIS)	<p>Implementation of the environmental management information system (EMIS) continues at P4, with all air and water permit information entered into this system. This information includes all tasks and activities associated with routine monitoring, recordkeeping, and reporting. Staff are anticipating an expansion of this system to include ash and coal combustion products activities during 2004.</p>
Supplier audits	<p>We Energies continues to perform periodic audits of key suppliers of environmental services (e.g., management of used oil, lighting materials, solid and hazardous waste, antifreeze, etc.). This program has now been extended across the company. Approximately 55 suppliers are currently certified by the company, although not all of these suppliers perform services at P4. These companies are examined on a schedule of once every two to four years depending on the type of service provided. The ISO 14001 is used as the framework for conducting these audits.</p>
Semi-annual monitoring reports and excess emission summaries	<p>Semi-annual monitoring and excess emission reports are provided to the DNR and EPA under separate cover in accordance to the schedule outlined in the cooperative agreement.</p>

⁶ A more comprehensive discussion on We Energies' recovery and recycling of material is presented in the corporate performance report at www.wec-performancereport.com.

Annual discharge monitoring summary report	<p>The annual wastewater discharge monitoring summary report is provided to the DNR under separate cover in the first quarter of each calendar year. This summary report saves approximately 200 pages of discharge monitoring reports that would otherwise be submitted on a monthly basis to the agency. Monitoring of required parameters continues to occur in order to manage plant performance, and this information is maintained at the plant.</p>
Wastewater notifications	<p>The plant is required to notify the DNR and take corrective and preventive action whenever there is a temporary exceedance of the parameters outlined in the plant's wastewater discharge permit. During 2002, the plant reported one day where the total suspended solids (TSS) concentration exceeded 100 mg/l. A similar notification for TSS occurred in 2003, as well as one incident where the pH level was outside the 6.0-9.0 limits. Corrective and preventive action was taken in all cases.</p>
Flue Gas Opacity	<p>During 2003, the average annual opacity of flue gas emitted by P4 was five percent. This compares to the regulatory limit of 20 percent in the plant's air quality permit, and the 10 percent average opacity performance target contained in the Environmental Cooperative Agreement. During 2003, P4 experienced four six-minute periods where the opacity was temporarily above the 20 percent regulatory limit. In all cases immediate corrective action was taken by plant staff, followed by preventive action to minimize to future occurrences. These four periods were reported to the DNR as part of the plant's routine air emission performance reporting.</p> <p>The plant's monitoring system continuously monitors opacity and maintains records. These records include any periods when the opacity exceeds the Environmental Cooperative Agreement voluntary targets of 17 percent or the 10 average daily opacity goal, as well as corrective actions taken by plant staff. Detailed information is provided to the DNR in the plant's semi-annual excess emission summaries. An annual air quality compliance certification statement is also provided to the DNR.</p>
Construction related to plant emission sources	<p>The plant completed construction of the state's first selective catalytic reduction (SCR) unit for NO_x reduction in 2002-3. This \$80 million installation was for Unit 2 and was fully operational during the summer ozone season.</p> <p>A second SCR is planned for Unit 1 as part of an extensive air quality control system construction project starting in 2004.</p> <p>Additionally, the plant will be initiating installation of two wet flue gas desulfurization units (FGD) systems on Units 1 and 2 in 2004. This will also require the removal of some existing warehouses and other structures (including the plant stack) east of the main plant. Construction of a new stack will start in 2004.</p>

DATA APPENDIX

Energy Use

Tons of Coal Combusted at P4 tons		
1999		5,450,195
2000		5,294,942
2001		5,237,028
2002		4,843,593

Volume of Natural Gas Combusted at P4 cubic feet x 1,000		
1999		227,001
2000		237,968
2001		131,748
2002		225,902

Volume of Fuel Oil Combusted at P4 gallons		
1999		57,770
2000		16,501
2001		63,340
2002		100,912

Gross Generation

Gross and Net Electric Generation at P4 megawatt hours			
	<i>Gross</i>		<i>Net</i>
1999	9,282,529		8,709,608
2000	8,974,819		8,398,877
2001	8,820,773		8,234,709
2002	8,469,446		7,898,580

Particulate Matter Emissions

Particulate Matter Emissions from P4 tons		
1999		509
2000		456
2001		512
2002		539

Pounds of Particulate air Emissions per Megawatt Hour pounds		
1999		0.110
2000		0.102
2001		0.117
2002		0.127

Sulfur Dioxide Emissions

SO ₂ Emissions from P4 tons	
1999	38,009
2000	34,258
2001	32,130
2002	33,446

Pounds of Particulate Air Emissions per Megawatt Hour pounds per megawatt hour	
1999	8.18
2000	7.63
2001	7.28
2002	7.90

Nitrogen Oxide Emissions

NO _x Emissions from P4 tons	
1999	23,687
2000	20,871
2001	21,376
2002	21,487

Seasonal Nitrogen Oxide Emissions

Seasonal NO _x Emissions per Megawatt Hour pounds per megawatt hour	
1999	4.498
2000	4.686
2001	5.261
2002	2.545

Carbon Dioxide

Carbon Dioxide Emissions from P4 millions of tons	
1999	11.128
2000	10.053
2001	9.728
2002	9.387

Pounds of Carbon Dioxide Emissions per Megawatt Hour Pounds	
1999	2,397
2000	2,240
2001	2,205
2002	2,217

Mercury Emissions

Air Emissions of Mercury from P4 pounds	
1999	834
2000	784
2001	802
2002	838

Pounds of Mercury Air Emissions per Megawatt Hour pounds	
1999	0.0000895
2000	0.0000874
2001	0.0000910
2002	0.0000990

Wastewater Discharges

Average Total Suspended Solids Concentration in Wastewater Discharge mg/l			
	<i>Low Volume</i>	<i>Coal Pile</i>	<i>Metal Cleaning</i>
1999	15	13	8
2000	18	14	5
2001	18	8	5
2002	20	12	4

Average Total Suspended Solids Discharged per Day lbs/day			
	<i>Low Volume</i>	<i>Coal Pile</i>	<i>Metal Cleaning</i>
1999	98	53	14
2000	103	34	11
2001	104	18	10
2002	114	44	10

Total Phosphorus Average Daily Concentration in Cooling Water Blowdown mg/l	
1999	0.99
2000	0.98
2001	0.95
2002	0.90

Total Residual Chlorine in Cooling Tower Blowdown mg/l	
1999	0.005
2000	0.004
2001	0.006
2002	0.005

Solid Waste

Annual Disposal Volumes in the P4 Landfill tons	
1999	11,900
2000	2,350
2001	1,940
2002	10

Hazardous Waste Generated at P4 pounds	
1999	25,652
2000	1,851
2001	552
2002	2,725

Paper and Cardboard Recycling at P4 pounds	
1999	41,095
2000	40,240
2001	29,300
2002	10,560